## PATENT COOPERATION TREATY

**PCT** 

REO'D 12 MAY 2004

INTERNATIONAL PRELIMINARY REPORT ON PATENTABLETT

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

International application No.   International filing date (day/month/year)   Priority date (day/month/year)   19.07.2002   International Preliminary Examination (PC) or national classification and IPC   A61C 8/00, A61F 2/02, A61L 27/06   Applicant   Astra Tech AB et al    1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. 2. This REPORT consists of a total of	Applicant's or agent's file reference PC-21002331	FOR FURTHER ACTION See	Form PCT/IPEA/416				
Detail   D		International filing date (day/month/yea	ar) Priority date (day/month/year)				
International Patent Classification (IPC) or national classification and IPC  AG1C 8/00, AG1F 2/02, AG1L 27/06  Applicant  Astra Tech AB et al  1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. 2. This REPORT consists of a total of 3 sheets, including this cover sheet. 3. This report is also accompanied by ANNEXES, comprising:  a. (sent to the applicant and to the International Bureau) a total of sheets, as follows: sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 670 of the Administrative Instructions).  b. (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s))  containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).  4. This report contains indications relating to the following items:  Box No. I Basis of the report  Box No. II Priority  Box No. II Basis of the report  Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement  Box No. VI Certain defects in the international application  Certain observations on the international application  Date of submission of the demand  Date of completion of this report  16.02.2004  Name and mailing address of the IPEA/SE Patent- och registreringsverket  Section 57 2 88  Date No. 46 8 667 72 88  Telephone No. +46 8 782 25 00							
Applicant Astra Tech AB et al  1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.  2. This REPORT consists of a total of 3 sheets, including this cover sheet.  3. This report is also accompanied by ANNEXES, comprising:  a. (sent to the applicant and to the International Buream) a total of sheets, as follows:  sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).  sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.  b. (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s))  readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).  4. This report contains indications relating to the following items:  Box No. I Basis of the report  Box No. IV Lack of unity of invention  Box No. IV Lack of unity of invention  Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability in Box No. VII Certain defects in the international application  Date of submission of the demand  Date of completion of this report  16.02.2004  Name and mailing address of the IPEA/SE Patent- och registrezingsverket  Box 5055  S-102 42 STOCKHOLM  Telephone No. +46 8 667 72 88  Telephone No. +46 8 782 25 00	· · · · · · · · · · · · · · · · · · ·		13.07.2002				
Applicant  Astra Tech AB et al  1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.  2. This REPORT consists of a total of 3 sheets, including this cover sheet.  3. This report is also accompanied by ANNEXES, comprising:  a. (sent to the applicant and to the International Bureau) a total of sheets, as follows:  sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets continuing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).    (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s))   (cent to the International Bureau only) a total of (indicate type and number of electronic carrier(s))   (atom to the International Bureau only) a total of (indicate type and number of electronic carrier(s))   (atom to the International Bureau only) a total of (indicate type and number of electronic carrier(s))   (atom to the International Bureau only) a total of (indicate type and number of electronic carrier(s))   (atom to the International Bureau only) a total of (indicate type and number of electronic carrier(s))   (atom to the International Bureau only) a total of (indicate type and number of electronic carrier(s))   (atom to the International Bureau only) a total of (indicate type and number of electronic carrier(s))   (atom to the International Bureau only) a total of (indicate type and number of electronic carrier(s))   (atom to the International Bureau only) a total of (indicate type and number of electronic carrier(s))   (atom to the International Bureau only) a total of (indicate type and number of electronic carrier(s))   (atom to the International Bureau) and the Supplemental Box No. II Busis of the report   (atom to the International Supplemental Box No. II Priority   (atom to the Internati							
1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.  2. This REPORT consists of a total of	Note 0,00, noti 2,02,	MOIL 27700					
1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.  2. This REPORT consists of a total of	Applicant						
Authority under Article 35 and transmitted to the applicant according to Article 36.  2. This REPORT consists of a total of	Astra Tech AB et al						
2. This REPORT consists of a total of 3 sheets, including this cover sheet.  3. This report is also accompanied by ANNEXES, comprising:  a. (sent to the applicant and to the International Bureau) a total of sheets, as follows:  sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).  sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.  b. (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s))  containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).  4. This report contains indications relating to the following items:  Box No. I Basis of the report  Box No. II Non-establishment of opinion with regard to novelty, inventive step and industrial applicability plicability in the priority and priority in the							
3. This report is also accompanied by ANNEXES, comprising:  a (sent to the applicant and to the International Bureau) a total of							
a (sent to the applicant and to the International Bureau) a total of			S COVER SHEEL.				
sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).  sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. 1 and the Supplemental Box.  b. (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s))  containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).  4. This report contains indications relating to the following items:  Box No. I Basis of the report  Box No. II Priority  Box No. II Priority  Box No. IV Lack of unity of invention  Box No. IV Lack of unity of invention  Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement  Box No. VII Certain defects in the international application  Date of submission of the demand  Date of submission of the demand  Date of completion of this report  16.02.2004  Name and mailing address of the IPEA/SE Patent- och registreringsverket  Box S055  3-102 42 STOCKHOLM  Jack Hedlund/Els Telephone No. +46 8 782 25 00	3. This report is also accompanied of	y ANNEXES, comprising:					
and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).  sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.  b. (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s))  containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).  4. This report contains indications relating to the following items:  Box No. I Basis of the report  Box No. II Priority  Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  Box No. IV Lack of unity of invention  Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement  Box No. VII Certain defects in the international application  Date of submission of the demand  Date of completion of this report  16.02.2004  Name and mailing address of the IPEA/SE Patent- ooch registreringsverket  Box 5055  3-102 42 STOCKHOLM  Tack Hedlund/Els Telephone No. +46 8 782 25 00	a (sent to the applicant	and to the International Bureau) a total	of sheets, as follows:				
sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.  b. (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).  4. This report contains indications relating to the following items:  Box No. I Basis of the report  Box No. III Priority  Box No. IV Lack of unity of invention  Box No. IV Lack of unity of invention  Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement  Box No. VI Certain documents cited  Box No. VII Certain defects in the international application  Date of submission of the demand  Date of completion of this report  16.02.2004  Name and mailing address of the IPEA/SE Patent- och registreringsverket  Box 5055  S-102 42 STOCKHOLM  Jack Hedlund/Els Facsimile No. +46 8 667 72 88  Telephone No. +46 8 782 25 00	and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the						
Supplemental Box.  b.  (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s))	sheets which	supersede earlier sheets, but which this					
readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).  4. This report contains indications relating to the following items:    Box No. I   Basis of the report							
readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).  4. This report contains indications relating to the following items:  Box No. I Basis of the report  Box No. II Priority  Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  Box No. IV Lack of unity of invention  Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement  Box No. VI Certain documents cited  Box No. VII Certain defects in the international application  Date of submission of the demand  Date of completion of this report  16.02.2004  Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055  Facsimile No. +46 8 667 72 88  Telephone No. +46 8 782 25 00	b (sent to the Internation						
Box No. II Basis of the report  Box No. II Priority  Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  Box No. IV Lack of unity of invention  Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement  Certain documents cited  Box No. VI Certain defects in the international application  Box No. VIII Certain observations on the international application  Date of submission of the demand  Date of completion of this report  16.02.2004  Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055  S-102 42 STOCKHOLM  Jack Hedlund/Els Facsimile No. +46 8 667 72 88  Telephone No. +46 8 782 25 00		s indicated in the Supplemental Box Rel					
Box No. II Basis of the report  Box No. II Priority  Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  Box No. IV Lack of unity of invention  Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement  Certain documents cited  Box No. VI Certain defects in the international application  Box No. VIII Certain observations on the international application  Date of submission of the demand  Date of completion of this report  16.02.2004  Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055  S-102 42 STOCKHOLM  Jack Hedlund/Els Facsimile No. +46 8 667 72 88  Telephone No. +46 8 782 25 00	This report contains indications re	elating to the following items:					
Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  Box No. IV Lack of unity of invention  Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement  Box No. VI Certain documents cited  Box No. VII Certain defects in the international application  Box No. VIII Certain observations on the international application  Date of submission of the demand  Date of completion of this report  16.02.2004  Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM  Jack Hedlund/Els Facsimile No. +46 8 667 72 88  Telephone No. +46 8 782 25 00		_					
Box No. IV Lack of unity of invention  Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement  Box No. VI Certain documents cited  Box No. VII Certain defects in the international application  Box No. VIII Certain observations on the international application  Date of submission of the demand  Date of completion of this report  16.02.2004  Name and mailing address of the IPEA/SE Patent— och registreringsverket Box 5055 S-102 42 STOCKHOLM  Jack Hedlund/Els Facsimile No. +46 8 667 72 88  Telephone No. +46 8 782 25 00	Box No. II Priority						
Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement  Box No. VI Certain documents cited  Box No. VII Certain defects in the international application  Box No. VIII Certain observations on the international application  Date of submission of the demand  Date of completion of this report  16.02.2004  Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM  Jack Hedlund/Els Facsimile No. +46 8 667 72 88  Telephone No. +46 8 782 25 00	Box No. III Non-es	on-establishment of opinion with regard to novelty, inventive step and industrial applicability					
applicability; citations and explanations supporting such statement  Box No. VI Certain documents cited  Box No. VII Certain defects in the international application  Box No. VIII Certain observations on the international application  Date of submission of the demand  Date of completion of this report  16.02.2004  Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM  Facsimile No. +46 8 667 72 88  Telephone No. +46 8 782 25 00	Box No. IV Lack of	funity of invention					
Box No. VI Certain documents cited  Box No. VII Certain defects in the international application  Box No. VIII Certain observations on the international application  Date of submission of the demand  Date of completion of this report  16.02.2004  Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM  Facsimile No. +46 8 667 72 88  Telephone No. +46 8 782 25 00							
Box No. VIII Certain observations on the international application  Date of submission of the demand  Date of completion of this report  16.02.2004  Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM  Facsimile No. +46 8 667 72 88  Date of completion of this report  U6.05.2004  Authorized officer  Jack Hedlund/Els Telephone No. +46 8 782 25 00							
Date of submission of the demand  Date of completion of this report  16.02.2004  Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM  Facsimile No. +46 8 667 72 88  Date of completion of this report  06.05.2004  Authorized officer  Jack Hedlund/Els Telephone No. +46 8 782 25 00	Box No. VII Certain	n defects in the international application					
16.02.2004  Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM  Facsimile No. +46 8 667 72 88  06.05.2004  Authorized officer  Jack Hedlund/Els Telephone No. +46 8 782 25 00	Box No. VIII Certain	Box No. VIII Certain observations on the international application					
16.02.2004  Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM  Facsimile No. +46 8 667 72 88  06.05.2004  Authorized officer  Jack Hedlund/Els Telephone No. +46 8 782 25 00	Date of submission of the demand	Date of com	pletion of this report				
Name and mailing address of the IPEA/SE  Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM  Facsimile No. +46 8 667 72 88  Authorized officer  Jack Hedlund/Els Telephone No. +46 8 782 25 00	*						
Name and mailing address of the IPEA/SE  Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM  Facsimile No. +46 8 667 72 88  Authorized officer  Jack Hedlund/Els Telephone No. +46 8 782 25 00	16.02.2004	06.05.2	06.05.2004				
Patent- och registreringsverket  Box 5055 S-102 42 STOCKHOLM  Facsimile No. +46 8 667 72 88  Telephone No. +46 8 782 25 00			Authorized officer				
S-102 42 STOCKHOLM Jack Hedlund/Els Facsimile No. +46 8 667 72 88 Telephone No. +46 8 782 25 00	Patent- och registreringsverket						
Facsimile No. +46 8 667 72 88 Telephone No. +46 8 782 25 00		Jack He	Jack Hedlund/Els				
Form PCT/IPEA/409 (cover sheet) (January 2004)		Telephone N					

Box	No. I	Basis of the report				
1.	With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.					
		This report is based on a translation from the original language into the following language which is the language of a translation furnished for the purposes of:				
		international search (under Rules 12.3 and 23.1(b))				
		publication of the international application (under Rule 12.4)				
		international preliminary examination (under Rules 55.2 and/or 55.3)				
2.	With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):					
	$\boxtimes$	the international application as originally filed/furnished				
		the description:				
		pages as originally filed/furnished				
		pages* received by this Authority on				
	_	pages* received by this Authority on				
	Ш	the claims:				
		pagesas originally filed/furnished				
		pages* as amended (together with any statement) under Article 19 pages* received by this Authority on				
		pages* received by this Authority on				
		the drawings:				
	لــا	pages as originally filed/furnished				
		pages* received by this Authority on				
		pages* received by this Authority on				
		a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.				
3.		The amendments have resulted in the cancellation of:				
		the description, pages				
		the claims, Nos.				
		the drawings, sheets/figs				
		the sequence listing (specify):				
		any table(s) related to the sequence listing (specify):				
4.		This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).				
		the description, pages				
		the claims, Nos.				
		the drawings, sheets/figs				
		the sequence listing (specify):				
		any table(s) related to the sequence listing (specify):				
*	If item	n 4 applies, some or all of those sheets may be marked "superseded."				
	-J					

## INTERNATIONAL PRELIM. RY REPORT ON PATENTABILITY

In onal application No.
PCT/SE 2003/000721

Во	x No. V	Reasoned statement u citations and explanat		ng such statement	tep or industrial applicability,	_
1.	Statement	t				
	Nove	lty (N)	Claims	1-27	YES	
			Claims		NO	
	Inven	ative step (IS)	Claims	1-27	YES	
	2.2.	, c 5.0p ()	Claims	-A	NO	
	Indus	trial applicability (IA)	Claims	1-27	YES	
	muus	ulai applicability (IA)	Claims	1-61	NO	

2. Citations and explanations (Rule 70.7)

Cited documents:

- 1. WO 9517217 A1 (ASTRA AKTIEBOLAG)
- 2. WO 9616611 A1 (IMPLANT INNOVATIONS, INC.)

The documents cited in the International Search Report represent background art.

The invention defined in claims 1 - 27 is not disclosed by any of these documents.

None of the cited documents gives any indication towards the claimed implant and method for treating an implant surface. No relevant combination of the cited documents would lead a person skilled in the art to the invention defined in the claims.

Therefore, the invention defined in claims 1 - 27 is novel and is considered to involve an inventive step. It is also considered to be industrially applicable.